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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,982	09/20/2001	Tetsuhiko Miyatani	2001_1336A	1907

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,982

Applicant(s)

MIYATANI, TETSUHIKO

Examiner

Melur Ramakrishnaiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,6,9,12 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10,11,13,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-8-2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-2, 4-5, 7-8, 10-11, 13, 18-19, are rejected under 35 U.S.C 102(e) as being anticipated by Vadgama et al. (GB 2344221, hereinafter Vadgama).

Regarding claim 1, Vadgama discloses a receiver that uses multiple antennas to receive signals arriving over multiple paths, the receiver comprising; a receive weight generating circuit (12, fig. 1) operable to generate receive weights for individual one of the antennas based on signals received from the antennas (2-1... 2-4, fig. 1), summing circuit (10, figs. 1-2) operable to calculate sums of the results obtained by multiplying signals received from the antennas and the receive weights of the individual weights of the individual antennas generated by the receive weight generating circuit (page 1, line 29 – page 2, line 15), a path detection circuit (14, fig. 2) operable to acquire delay profile

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based on the sums calculated by the summing circuit, and operable to detect paths of the received signals based on delay profile (page 8, line 29 – page 10, line 5).

Regarding claim 13, Vadgama discloses CDMA base station that uses a receiver to receive spread spectrum signals from multiple mobile stations that transmit CDMA spread spectrum signals over airways, detect received signal paths for every mobile station and detect spread spectrum signals contained for every mobile station and every path based on the detection result, the receiver comprising: multiple antennas (2-1 ... 2-4, figs. 1-2) operable to receive signals arriving over multiple paths, a receive weight generating circuit (12, fig. 1) operable to generate receive weights for individual ones of the antennas based on signals received from the antennas, a summing circuit (10, figs. 1-2) operable to calculate sums of results obtained by multiplying the signals received from antennas and receive weights of the individual antennas generated by receive weight generating circuit (page 1, line 29 – page 2, line 15), a path detection circuit operable to correlate sums calculated by the summing circuit with a spreading code (implied by despreader 141, fig. 3), operable to acquire delay profile based on correlation result, and operable to detect the paths of the received signals based on the delay profile (page 8, line 29 – page 10, line 5).

Regarding claims 18-19, Vadgama discloses a path detector and method that detect paths of signals by multiple antennas (2-1 ... 2-4, figs. 1-2) via multiple paths, wherein the path detector detects paths of the received signals based on a delay profile which is acquired based on sums of multiplication results obtained by multiplying signals

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received from the antennas and receive weights for individual ones of the antennas (page 1, line 29 – page 2, line 15, page 8, line 29 – page 10, line 5).

Regarding claims 2, 4-5, 7-8, 10-11, Vadgama further teaches the following: the receive weight generating circuit (12, fig. 1) operable to generate receive weights for each of the multiple paths, the summing circuit (10, figs. 1-2) operable to calculate the sum of each of the multiple receive weights, and the path detection circuit (14, fig. 2) operable to detect the paths of the received signals based on the multiple sums of the summing circuit, summing circuit (10, fig. 2) comprises at least one multiplier (8, fig. 2) operable to time-division multiply the signals received from the antennas and receive weights of the individual antennas generated by the receive weight generating circuit, and synthesizer (reads on 10, fig. 2) operable to sum the multiplication results of the individual antennas provided by the multiplier, receiver is a CDMA receiver operable to receive CDMA spread spectrum signals over the airwaves, and wherein the receiver is operable to detect spread spectrum signals contained in the received signals for every path based on the received signal path detection result ((page 1, line 29 – page 2, line 15, page 7, line 29 – page 10, line 5).

3. Claims 3, 6, 9, 12, 14-17 are allowed.

Response to Arguments

4. Applicant's arguments with respect to claims 1-2, 4-5, 7-8, 10-11, 13, 18-19 have been considered but are moot in view of the new ground(s) of rejection.

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5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melur Ramakrishnaiah
Primary Examiner
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